Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) An integrally packaged imaging module, comprising:

an integrated circuit (IC) including an image sensing device formed on a semiconductor substrate;

a first adhesive layer located on at least a portion of a top surface of the semiconductor substrate;

a spacing structure having a first height, the spacing structure affixed to the semiconductor structure using the first adhesive layer;

a second adhesive layer located on at least a portion of a top surface of the spacing structure; and

a transparent enclosure portion having a surface area extending substantially to the periphery of the spacing structure, the transparent enclosure portion affixed to the spacing structure using the second adhesive layer thereby defining a cavity above the image sensing device of the IC, the cavity having a cavity height that is substantially equal to the first height of the spacing structure.

~~wafer-level packaging enclosing the IC and formed at a semiconductor wafer level when the IC is positioned on a semiconductor wafer, and including:~~

~~a transparent enclosure portion adapted to permit image acquisition of an image by the image sensing device over a desired range of wavelengths; and~~

~~a first adjustable height spacing structure providing a cavity between an inner surface of the transparent enclosure portion and the image sensing device, wherein a depth of the cavity is configurable along an axis perpendicular to the semiconductor substrate to control a distance between an outer surface of the transparent enclosure portion and the image sensing device, and wherein the depth of the cavity is configured during assembly of the imaging module based on an adjustment of a height of the spacing structure during the assembly.~~

2. (Original) The integrally packaged imaging module of claim 1, wherein the transparent enclosure portion includes material having infra-red filtering properties, wherein the desired range of wavelengths consists of wavelengths shorter than a cutoff wavelength associated with the infra-red filtering material.

3-4. (Canceled)

5. (Original) The integrally packaged imaging module of claim 1, wherein the transparent enclosure portion includes a lens optically coupled with a multiplicity of pixels of the image sensing device.

6. (Currently amended) The integrally packaged imaging module of claim 1, ~~wherein the wafer-level packaging includes~~ further comprising a lens support separate from the ~~first~~ spacing structure and ~~adapted to be attached~~ affixed to a top surface of the transparent enclosure portion, ~~and adapted to interface with a lens and to suspend~~ the lens support configured to support a lens over the transparent enclosure portion.

7. (Original) The integrally packaged imaging module of claim 6, wherein the lens support and the lens are preassembled into a lens assembly.

8. (Previously presented) A method of fabricating integrally packaged imaging modules, the method comprising:

forming an array of integrated circuits (ICs) on a semiconductor wafer, each IC including an image sensing device;

integrally packaging the array of ICs on the wafer with wafer-level packaging, the packaging step comprising:

enclosing the array of ICs on a first side with a continuous transparent enclosure layer so that each image sensing device of each IC in the array on the wafer can detect an image consisting of a desired range of wavelengths through the transparent enclosure layer;

aligning and attaching an array of lens supports to another packaging layer of the wafer such that lenses used with the array of lens supports are optically aligned with corresponding image sensing devices; and dicing the packaged array of ICs on the wafer into individual integrally packaged imaging modules.

9. (Original) The method of claim 8, and further comprising:

controlling a spacing between aligned lenses used with the lens supports and the corresponding image sensing devices, wherein the controlling includes providing a spacing structure array between the array of ICs and the array of lens supports.

10. (Original) The method of claim 8, and further comprising:

forming a cavity array between each IC and the transparent enclosure layer, wherein the forming of the cavity array includes situating a spacer array between the semiconductor wafer and the transparent enclosure layer, and controlling a cavity dimension along an axis perpendicular to the semiconductor wafer to within a tolerance of 50 microns.

11. (Previously presented) An integrally packaged imaging module, comprising:

an integrated circuit (IC) including an image sensing device formed on a semiconductor substrate;

wafer-level packaging enclosing the IC and formed at a semiconductor wafer level when the IC is positioned on a semiconductor wafer, and including:

a packaging substrate, wherein the semiconductor substrate is positioned over the packaging substrate and extends over substantially an entire top surface of the packaging substrate;

a transparent enclosure portion extending over substantially an entire top surface of the packaging substrate and adapted to permit image acquisition of an image by the image sensing device over a desired range of wavelengths;

a first lens support adapted to suspend a first lens so that the first lens directs the image onto the image sensing device; and

a first spacing structure adapted to provide a spacing between the suspended first lens and the image sensing device.

12. Original) The integrally packaged imaging module of claim 11 wherein the transparent enclosure portion prevents unwanted wavelengths from illuminating the image sensing device.

13. (Original) The integrally packaged imaging module of claim 11, wherein the first spacing structure is configurable during assembly of the integrally packaged imaging module to achieve a desired focus of the image onto the image sensing device.

14. (Original) The integrally packaged imaging module of claim 11, wherein the first spacing structure is situated between the transparent enclosure portion and the suspended first lens, and further comprising:

a second spacing structure situated between the semiconductor substrate and the transparent enclosure portion, and forming a cavity between the image sensing device and the transparent enclosure portion.

15. (Original) The integrally packaged imaging module of claim 11, wherein the first spacing structure is a part of the first lens support.

16. (Original) The integrally packaged imaging module of claim 11, wherein the first spacing structure forms a cavity between the image sensing device and the transparent enclosure portion.

17. (Original) The integrally packaged imaging module of claim 11, wherein a thickness of a packaging layer is configurable during fabrication of the integrally packaged imaging module to achieve a desired focus of the image directed onto the image sensing device.

18. (Original) The integrally packaged imaging module of claim 11, wherein the transparent enclosure portion includes the first lens support.

19. (Original) The integrally packaged imaging module of claim 11, wherein the first lens support is preassembled with the first lens into a first lens assembly.

20. (Original) The integrally packaged imaging module of claim 11, wherein the wafer-level packaging further includes a second lens support coupled to the first lens support, the second lens support adapted to suspend a second lens so that the second lens directs the image onto the image sensing device through the first lens.

21. (New) The integrally packaged imaging module of claim 1, wherein the spacing structure is one of a) a four-walled spacer rim surrounding a perimeter of the IC, and b) a set of four non-contiguous pieces.